

## Before the Federal Communications Commission Washington, D.C. 20554

In the Matter of:	)	
	)	PS Docket No. 06-229
Public Safety and Homeland Security Bureau	)	
Seeks Comment on the Technical and Operational Feasibility of Enabling Flexible Use of the 700 MHz Public Safety Narrowband Allocation and Guard Band for Broadband Services	)	
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## **COMMENTS OF ARKANSAS WIRELESS INFORMATION NETWORK (AWIN)**

The Arkansas Wireless Information Network (AWIN) hereby submits the following comments to the Federal Communications Commission (FCC or Commission) in response to the above Public Notice in PS Docket No. 06-229, in which the Commission is seeking comments on the feasibility of allowing flexible use of the 700 MHz public safety narrowband spectrum (769 – 775 MHz and 799 – 805 MHz) and the adjacent guard band (768 – 769 MHz and 798 – 799 MHz) spectrum for broadband



One Capitol Mall | P.O. Box 3155 | Little Rock, AR 72203 | phone 501.682.2701 | fax 501.682.4310 services. For the critical reasons provided herein, AWIN strongly opposes any such flexible use and

urges to Commission to abandon any further efforts to consider such implementation.

AWIN is a state of the art, Statewide public safety narrowband communications network in the State of Arkansas. It is a Project 25 standard compliant mission critical narrowband voice and low speed data system, with approximate current coverage of over 93 percent of the State population, using 74 transmitter sites, We currently have approximately 17,000 mobile and portable radios on the network operating on 87\_narrowband 12.5 kHz State channels in the 700 MHz public safety band, split about evenly between State and local personnel, representing over 500 public safety agencies that have joined the AWIN network to date. At completion, AWIN is targeted to have 90\_- 100 transmitter sites, with approximately 20,000 mobile and portable radios and 750 agencies that will operate on the network. The State of Arkansas has made a significant investment in this mission critical voice network using the newly available 700 MHz band and emphasize that this network is the cornerstone of our statewide interoperability plan.

Any consideration by the Commission to allow use of any portion of these narrowband channels for broadband technology or services in the foreseeable future could drastically impact network operability among the agencies operating on the AWIN network within the State of Arkansas. The Commission must not introduce an optional plan which allows the development of a patchwork of narrowband and broadband networks across this nation. It is our understanding that a 5 MHz channel is required in order for broadband to operate efficiently and provide the applications and high level of

<sup>&</sup>lt;sup>1</sup> Public Safety And Homeland Security Bureau Seeks Comment On the Technical and Operational Feasibility of Enabling Flexible Use of the 700 MHz Public Safety Narrowband Allocation and Guard Band for Broadband Services, DA-10-1877 in PS Docket No. 06-229 (released September 28, 2010)



services public safety demands. This means that there will be a maximum of 1 MHz remaining for narrowband channels in any region electing to deploy broadband in the narrowband spectrum. Such a decision will dramatically reduce the number of State, General Use, Low Power and Interoperability channels available in 700 MHz narrowband plans both in and near regions where such broadband networks are deployed.

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AWIN must be assured of the much needed voice capacity we critically need in the statewide network. We diligently worked to ensure that we have sufficient 700 MHz channels to support the all of the State and local agencies currently and planning on operating on this network. The 700 MHz narrowband is the only spectrum block which can meet this need, given the limited availability of the 800 MHz, VHF and UHF public safety public safety channels.

Any such broadband deployment can negatively affect Arkansas and any neighboring States or cities to which we provide mutual support and who likewise provide such support to our agencies in times of emergency or disaster. The 700 MHz narrowband interoperability plan has been sought after by the public safety community for over a decade, and until the DTV transition mandate finally went into effect in June of last year, it could not be implemented in many areas where it was needed most. AWIN has long recognized the need for interoperability, among all the agencies on our 700 MHz network and, even more importantly, among the non-network agencies in our mutual aid support program, operating in legacy 800 MHz and the new 700 MHz public safety bands. As mandated by the FCC in 700 MHz on the interoperability channels, we are implementing technology that meets the Project 25 standard to enable such interoperability. However, our efforts will be severely hindered if we do not have access to the interoperability channels currently defined in the 700 MHz narrowband



plan. AWIN's and the public safety community's longtime goal of not only regional but nationwide interoperability may never be realized if the Commission promotes this flexible use option.

Of equal concern to AWIN is the likely increase in interference to our network caused by broadband technology introduced within the State of Arkansas or by other States at our border. In an effort to minimize such interference between co-channel operation of broadband and narrowband in any geographic area, we would need to set up a buffer zone, geographic rings around the broadband networks, to separate our narrowband network from a broadband network. The result is that we would have coverage gaps where our communications capability would be dramatically reduced in capacity. These areas where neither broadband nor narrowband communications can be used are an extremely inefficient use of much needed public safety spectrum. Further, we may be forced to look at more expensive options of modifying our equipment to try and minimize the distance of such buffer areas, leading AWIN to incur additional expense in an effort to provide greater statewide availability of the network.

We agree with the FCC and the public safety community that first responders must have access to next generation broadband video and high speed data communications and we strongly support the need for public safety spectrum beyond the existing 5 + 5 MHz broadband spectrum currently allocated to public safety (763 – 768 MHz and 793 – 798 MHz) and licensed to the Public Safety Spectrum Trust (PSST). We support all leading public safety and government associations that are urging Congress and the FCC to reallocate the D Block (758 - 763 MHz and 788 – 793 MHz) to public safety rather than auction it to commercial service providers. Such reallocation is the most agreed upon and consistent nationwide answer for enabling the spectrum capacity needed by public safety, especially for multi-media and real-time high resolution video applications, in one adjacent broadband



spectrum block for public safety. AWIN agrees with those public safety agencies that have already filed, and we expect will continue to file, objections to the FCC considering flexible use of the 700 MHz narrowband spectrum as an apparent alternative to reallocating the D Block to public safety.

The FCC notes that "many in the public safety community have stressed that providing sufficient capacity and performance for public safety narrowband operations remains of critical importance to existing public safety communications systems, and that until broadband is capable of supporting mission critical voice operations, narrowband will continue to play a central role in first responder communications". AWIN strongly reiterates this public safety message and emphasizes the criticality of the statewide network we are in the process of implementing in the State of Arkansas. We believe that public safety broadband video and data will become an important tool for public safety agencies in the near future and will be looking at how this high speed technology can assist our first responders, especially in our more densely populated cities. However, we note that, similar to other public safety agencies across the country, the populated areas where such broadband communications are most economically feasible because of coverage and serve the greatest number of first responders and citizens, are also the same areas where we most need spectrum capacity for the build out of our mission critical narrowband Arkansas Wireless Information Network.

In conclusion, AWIN strongly urges the FCC not to consider allowing flexible use of the 700 MHz public safety narrowband spectrum and the adjacent guard band spectrum for broadband. Now that this much needed 700 MHz spectrum is finally available for build out of our narrowband systems, such as AWIN in the State of Arkansas, public safety agencies across this country cannot wait once again while the Commission considers this further option and change to the band plan. In fact, we

<sup>&</sup>lt;sup>2</sup> FCC Public Notice, DA 10-1877, released September 28, 2010, page 2



believe that the FCC just by the introduction of this Public Notice is creating doubt among some public safety agencies as to whether to implement their 700 MHz narrowband system plans now or wait further until the FCC makes a decision on this possible further change in band plan. Therefore, AWIN urges the Commission to not only abandon this consideration but to quickly make a decision to drop this flexible use consideration. Arkansas and our many local public safety agencies currently on or planning to operate on AWIN have spent too much effort and time in bringing this highly demanded mission critical narrowband system to fruition. We cannot now face potentially damaging impact to regional and nationwide narrowband interoperability, communications capacity and efficient use of this 700 MHz spectrum with high likelihood of interference caused by a patchwork of broadband systems operating on the great majority of these narrowband channels in any areas of the country that may choose to implement such a broadband option.

Respectfully submitted,

Claire Bailey

Arkansas Chief Technology Officer

Date \_\_\_\_\_